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NEW FACTS ON THE RESYNTHESIS OF PROTEINS UNDER PRESSURE

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Interesting new facts were discovered characterizing the link between the highly specific biological activity of proteins and their macrostructure, i.e., the structure of the protein molecule in its entirety. Investigation by ultracentrifuging and immunological methods showed that hydrolyzates of protein containing fragments of the original molecule with a molecular weight of about 700 are completely lacking not only in antigenic, but also in hapten properties. In the resynthesis of proteins, the hapten properties are re-established in the first stages, while upon resynthesis of high molecular protein /i.e., in the final stage/, the antigenic properties are also fully restored. The specificity of resynthesis is apparent from the fact that the joint hydrolysis of two proteins (even such comparatively similar ones as two serum albumins from animals of different species) precludes obtaining of full-valued protein on resynthesis, since the hydrolysis products of the second protein interfere with the resynthesis of the first.

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